

Abstract**Active pixels with improved charge transfer**

An active pixel is described comprising a semiconductor substrate and
5 a radiation sensitive source of carriers in the substrate, such as for instance, a
photodiode. A non-carrier storing, carrier collecting region in the substrate is
provided for attracting carriers from the source as they are generated. At least one
doped or inverted region of a first conductivity is provided in or on the substrate for
storing the carriers before read-out. At least one non-carrier storing, planar current
10 flow, carrier transport pathway is provided from or through the carrier collecting
region to the at least one doped or inverted region to transfer the carriers without
intermediate storage to the read-out electronics.